

REMARKS

As of the 10 December 2009 *Office Action*, Claims 17-36 are pending in the *Application*. In the *Office Action*, the Examiner rejects Claims 17-36. Applicant thanks the Examiner with appreciation for the careful examination given to the *Application*.

Applicant submits this *Response and Amendment* solely to facilitate prosecution. As such, Applicant reserves the right to present new or additional claims in this *Application* that have similar or broader scope as originally filed. Applicant also reserves the right to present additional claims in a later-filed continuation application that have similar or broader scope as originally filed. Accordingly, any amendment, argument, or claim cancellation is not to be construed as abandonment or disclaimer of subject matter.

After entry of this *Response and Amendment*, Claims 17-36 are pending in the *Application*. Applicant respectfully submits that the pending claims are in condition for allowance over the references of record, and respectfully requests reconsideration of the claims in light of this submission. Applicant, accordingly, believes that the *Application* is allowable for the following reasons.

I. Rejections under 35 U.S.C. §103

In the *Office Action*, Claims 17-25, 27-28, and 33-36 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over US Patent No. 6,745,714 to Faber in view of US Patent No. 5,860,379 to Moody and US Patent No. 6,408,780 to Ozaki et al. Claim 26 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Faber in view of Moody and Ozaki et al., and further in view of US Patent No. 6,592,416 to Hochschild II. Claims 31-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over US Patent No. 3,608,316 to Manuel, in view of Faber, Moody and Ozaki et al. Applicant respectfully submits that the combination of cited references fails to disclose each and every claimed feature. Claim 29 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Faber in view of Moody and further in view of US Patent No. 4,872,782 to Streichenberger. Applicant respectfully submits that the combination of cited references fails to disclose each and every claimed feature.

Claims 17 and 29 as clarified recite dual roles for the flexible fluid retaining structures, those being to both maintain shape and correct operation of the upper surface member when in

use, and to provide inflating medium to the array of shaped drag inducing elements. See, for example, *US Patent Publication No. 20060078385 ¶¶[0035; 0040; 0063]*. The combination of cited references does not disclose, teach or suggest the provision of maintaining the structural rigidity of the present invention as now claimed, and specifically maintaining same by providing a grid network of pipes containing fluid under pressure.

It is respectfully shown that each of the pending Claims is patentable over the cited art. For example, Faber relates to a “dry dock” for raising a relatively small boat out the water. The device of Faber has of a series of adjacent joined cuboidal floatation cells **12** on which the boat rests when raised out of the water. At the underside of the cells **12** a single row or “beam” of cells **14** is provided. These are apparently similar to the cells **12**, but the cells **14** are turned through 90° with respect to the cells **12**. The cells **14** are provided with a manifold for pumping air into the cells and a discharge port through which water can be ejected from the cells (by air pressure) to adjust the buoyancy of the beam. All the cells are rigid. The cells **14** include inlet risers **32** depending from the manifold. The particular construction and placement of these risers within the cells **14** is key to the invention disclosed in Faber. That is, the risers must extend upwardly from the lower aft corners of the cells **14** to the upper forward corners (*Col. 2, Lines 60-62*).

Faber teaches the skilled person nothing about how a reduction in wave height might be achieved. Faber is solely concerned with raising relatively small boats in a harbor environment, which, as is understood by a fair understanding of Faber, occurs in perfectly calm waters. There is nothing in the design of the Faber apparatus that would suggest that it has the mechanical strength to be used to reduce waves, for example, in an offshore environment where the wind and wave forces are of orders of magnitude greater than in a quiet harbor. This is relevant to the consideration of the beam of cells **14** as a drag inducing element.

Inasmuch as the beam of Faber might have some effect in reducing wave height, it would do so by reflecting or deflecting waves incident on the surface of the beam. This is precisely the sort of construction which the apparatus of the invention seeks to avoid. See, for example, *US Patent Publication No. 20060078385 ¶[0016]*. To have any meaningful effect in reducing wave height, the beam of cells **14** would have to be mechanically very strong to resist the forces imposed on the beam by the waves. There is no indication in Faber that the beam of cells **14** has

such strength. It is thus respectfully submitted that Faber is silent to the disclosure of an apparatus for reducing wave height, and one of skill in the art when looking to design an apparatus for reducing wave height would not look at, and would not gain any useful information from, Faber.

Faber does not disclose a deployable apparatus for creating a local reduction in wave height that has a leading end remaining inclined downwardly with respect to incident waves when in use. Faber does not disclose drag inducing elements having structures that act to further increase drag of passing water molecules, the structures selected from the group consisting of bristles and fronds. Faber does not disclose at least one of the shaped drag inducing elements having the shape of a prism. Thus, it is respectfully submitted that the pending Claims are patentable over Faber.

Faber is combined with Moody allegedly in order to show that the drag inducing elements are collapsible or compressible. Moody also teaches a boat lift for small boat, for use in a calm harbor. The lift essentially comprises three air bladders that can be arranged under the boat and then inflated to raise the boat out of the water. Again, Moody teaches the skilled person nothing about how a reduction in wave height might be achieved. It is true that the apparatus of Moody is collapsible, in the sense that it can be deflated. However, there would be no motivation to one of skill in the art who is designing an apparatus for reducing wave height to add the collapsible boat lift of Moody to the existing boat lift of Faber.

Why would the skilled person envisage that adding the collapsible boat lift of Moody to the Faber boat lift would result in an apparatus effective in reducing wave height, for example, offshore? More basically, the Faber apparatus is a coherent and effective design of boat lift and it is not clear what advantage the skilled person would hope to attain by modifying the Faber apparatus by adding the inflatable boat lift of Moody. It is alleged that this would be to enhance storage, but since none of the other elements of the Faber design are collapsible compressible, foldable or otherwise reducible in size for storage this would seem, respectfully, irrelevant, if not taught against.

Moody does not cure the missing elements of Faber, and thus it is respectfully submitted that the pending Claims are patentable over Faber in view of Moody.

It is respectfully submitted that Claim 17 further is patentable over the cited references,

as the combination as proposed in the *Office Action*, in material respects, teaches away from the claimed invention by disclosing a combination that is not collapsible or compressible when not in use. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997). Further, to modify Faber to be storable would render it unsatisfactory for its intended purpose, and thus there is no suggestion or motivation to make the proposed modifications. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Claim 26 is rejected as obvious over Faber in view of Moody and Ozaki et al. and further in view of Hochschild II. Hochschild II relates to a naval gunnery target that happens to include a drogue anchor. It is not clear why a skilled person seeking to produce an apparatus as recited in Claim 26 for reducing wave height would look to Hochschild II and, if they did, there is nothing in Hochschild II that would teach or suggest that a *plurality* of drogue anchors might be useful in an apparatus for reducing wave height. The drogue anchor of Hochschild II is provided for an entirely different purpose, namely stabilization of the target.

Thus, Applicant respectfully submits that Claims 17-36 are patentable over the cited references, and are in condition for allowance.

II. Fees

This *Response and Amendment* is filed within four months of the *Office Action*, thus a one month extension of time fee is believed due.

No Claim fees are believed due.

Applicant authorizes the Commissioner to charge deposit account No. 20-1507 for any further fees deemed due.

CONCLUSION

By the present *Response and Amendment*, this Application has been placed in full condition for allowance. Accordingly, Applicant respectfully requests early and favorable action. Should the Examiner have any further questions or reservations, the Examiner is invited to telephone the undersigned Attorney at 404.885.2773.

Respectfully submitted,

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